NOTE ON THE SMERINTHINÆ.

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Having recently enjoyed the opportunity of studying the three or four common European species usually referred to Smerinthus, I find they belong to distinct genera. C. ocellatus has a blunt spine at extremity of fore tibie, and in cut of wing agrees well with Copismerinthus ophthalmicus, as pointed out by me twenty years ago. I would therefore refer C. ocellatus, C. cerisii and C. ophthalmicus to Copismerinthus Grote, 1886. I have formerly assumed that ocellatus was the type of Latreille's genus, but incorrectly so; since Latreille considers populi the type. Thus Amorpha Hübn. Tent., proposed for topuli alone, is a synonym of Smerinthus. To Eusmerinthus Grt., 1886, belongs E. geminatus as type, which has the fore tibiæ unarmed. Paonias Hübn., 1818, I have restricted originally to our P. excacatus, and it is now generally used for this type. The genus as it stands in the Verzeichniss is a mixed genus, but it seems to have been entirely neglected by Europeon writers until I restricted its use to P. excacatus. Our eyed Smerinthi remaining belong to Calasymbolus Grote, with astylus as type. Butler's extension of my generic term cannot be followed.

For tiliæ, the term Mimas, Hübn. Verz. must be kept, since this is the sole species and therefore type. To this genus the European Polyptychus quercus is allied in the shape of the wings, There is a sulcation on primaries opposite the cell and the secondaries have a shallow excavation from vein 4 to anal angle. In Smerinthus populi, Polyptychus quercus and Mimas tiliæ, the fore tibiæ are unarmed. The differences in the structure of the frenulum is described by Mr. Griffiths in Entom. Record for June, 1895. In America we have no species strictly congeneric with either of these three; the nearest ally to Smerinthus populi is Triptogon modesta. Our N. Am. Cressonia juglandis is distinctly an American type of the group. The relationship between Mimas and Polyptychus is further evidenced by the deflexion of the antennæ at tips, more prominent in M. tiliæ. I would arrange these forms as follows; I have not attempted a full synonymy.

Copismerinthus Grote, 1886.

Type: C. CERISII.

- I. ocellatus Linn. Europe. salicis Hübn.
- 2. cerisii Kirby. Canada; Northern New England.
- 3. ophthalmicus Boisd. Vancouver; Northern California.

Eusmerinthus Grote, 1886.

Type: E. GEMINATUS.

4. geminatus Say.* Lower Canada to Middle States.

var. jamaicensis Fernald.

var. tripartitus Grt.

Calasymbolus Grote, 1874.

Type: C. ASTYLUS.

 astylus Drury. Southern New England; Middle States. integerrima HARRIS.

6. myops Ab. & Sm. Canada to Southern States.

Paonias Hübn., 1881.

Type: P. EXCÆCATUS A. & S. (Grote restr.).

7. excæcatus Ab. & Sm. Canada to Southern States.

Mimas Hübn., 1818.

Type: M. tiliæ.

8. tiliæ Linn. Europe.

Polyptychus Hübn., 1818.

Type: P. QUERCUS (Grote restr.).

9. quercus Schiff. Southern Europe.

Smerinthus Latr., $1805 = Amorpha H \ddot{u}bn$., 1806.

Type: S. POPULI.

10. populi Linn. Europe.

Triptogon Bremer.

 modesta Harris. Canada; U. S. east of Rocky Mts. var. occidentalis Hy. Edw.

Cressonia G. & R. 1865.

Type: C. JUGLANDIS.

12. juglandis Ab. & Sm. Canada to Southern States; Mexico.

^{*} If jamaicensis Drury is our species with a wrong locality, the name has priority, but from the uncertainty I do not propose it. I have not found any Smerinthus in any West Indian collection hitherto examined by me. I have not been able to examine any of the Asiatic species.